AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A reference solution for use in instruments that analyze biological samples, comprising ~~at least two compounds selected from the group consisting of:~~ 7-15% of a water soluble polymer by weight, 6-10% of a glycol by weight, and 5-10% of a polysaccharide by weight, wherein the reference solution has a conductivity corresponding to a known hematocrit level.

2. (Currently Amended) The reference solution according to claim 1, wherein the water soluble polymer is non-ionic.

3. (Original) The reference solution according to claim 1, wherein the water soluble polymer is polyethylene glycol.

4. (Original) The reference solution according to claim 1, wherein the glycol comprises at least one glycol selected from the group consisting of ethylene glycol, propylene glycol, dipropylene glycol, and glycerol.

5. (Original) The reference solution according to claim 1, wherein the glycol is ethylene glycol.

6. (Currently Amended) The reference solution according to claim 1, wherein the polysaccharide is non-ionic.

7. (Original) The reference solution according to claim 1, wherein the polysaccharide is dextran.

8. (Original) The reference solution according to claim 1, further comprising at least one analyte.

9. (Original) There reference solution according to claim 8, wherein the analyte comprises an ion.

10. (Original) The reference solution according to claim 9, wherein the ion is selected from the group consisting of hydrogen, sodium, potassium, calcium, chloride, bicarbonate, lithium, magnesium, and ammonium.

11. (Original) The reference solution according to claim 9, wherein the concentration of the ion in the reference solution corresponds to the physiological concentration of the ion in human blood.

12. (Original) The reference solution according to claim 8, wherein the analyte comprises a biological metabolite.

13. (Original) The reference solution according to claim 12, wherein the biological metabolite is selected from the group consisting of glucose, lactate, urea, creatine, and creatinine.

14. (Original) The reference solution according to claim 12, wherein the concentration of the biological metabolite in the reference solution corresponds to the physiological concentration of the biological metabolite in human blood.

15. (Original) The reference solution according to claim 8, wherein the analyte comprises a gas.

16. (Original) The reference solution according to claim 15, wherein the gas is selected from the group consisting of oxygen and carbon dioxide.

17. (Original) The reference solution according to claim 15, wherein the partial pressure of the gas in the reference solution corresponds to the physiological partial pressure of the gas in human blood.

18. (Original) The reference solution according to claim 1, further comprising one or more additives selected from the group consisting of pH buffer solutions, preservatives, stabilizers, surfactants, dyes, and anticoagulants.

19. (Original) The reference solution according to claim 1, wherein the hematocrit level corresponds to the physiological hematocrit level in human blood.

20. (Original) The reference solution according to claim 1, wherein the hematocrit level is greater than the physiological hematocrit level in human blood.

21. (Original) The reference solution according to claim 1, wherein the hematocrit level is less than the physiological hematocrit level in human blood.

22. (Original) The reference solution according to claim 1, wherein the biological sample comprises blood.

23. (Currently Amended) A reference solution for use in instruments that analyze biological samples, comprising:

7-15% polyethylene glycol by weight,

6-10% ethylene glycol by weight, and

5-10% dextran by weight,

wherein the reference solution has a conductivity corresponding to a known hematocrit level.

24. (Original) The reference solution according to claim 23, further comprising one or more analytes.

25. (Currently Amended) A reference solution for use in instruments that analyze biological samples, comprising:

7-11% polyethylene glycol by weight and 5-9% dextran by weight, wherein the dextran has a molecular weight ranging from about 8,000 to about 40,000 and wherein the reference solution has a conductivity corresponding to a known hematocrit level.

26. (Original) The reference solution according to claim 2, further comprising one or more analytes.

27. (Currently Amended) A method of calibrating an instrument that analyzes biological samples, comprising:

(a) introducing a reference solution to the instrument, the reference solution comprising ~~at least two compounds selected from the group consisting of:~~ a water soluble polymer, a glycol, and a polysaccharide, wherein the reference solution has a conductivity corresponding to a known hematocrit level;

(b) obtaining a signal from the instrument corresponding to a conductivity of the reference solution; and

(c) adjusting the instrument so that the signal obtained from the instrument is representative of the conductivity corresponding to the known hematocrit level~~reference solution conductivity~~.

28. (Original) The method according to claim 27, further comprising:

(d) obtaining a signal from the instrument ~~representative of~~ corresponding to a conductivity of a known~~the~~ concentrations of one or more analytes in the reference solution; and

(e) adjusting the instrument so that the signal obtained from the instrument is representative of the conductivity corresponding to the known concentrations of the one or more analytes.

29. (New) The method of claim 7, wherein the dextran has a molecular weight ranging from about 8,000 to about 40,000.

30. (New) The method of claim 23, wherein the dextran has a molecular weight ranging from about 8,000 to about 40,000.